

# Solar Power Charger

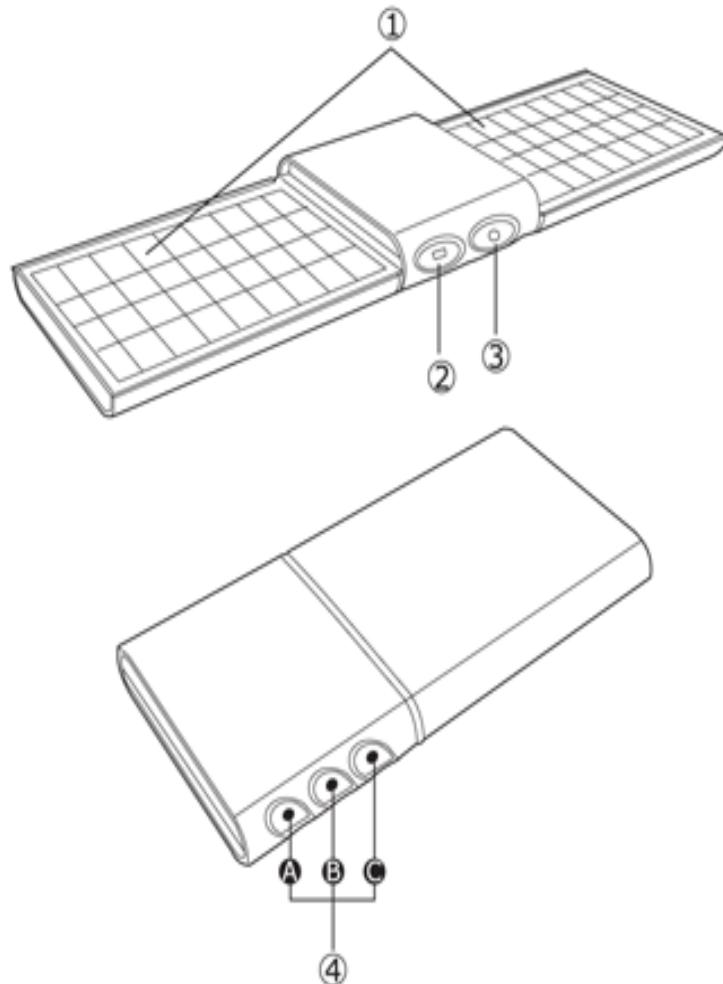
## User Manual

Model: MSPC-01



\*mbeat solar power charger's aluminum skin and solar panel may be protected during transit by a transparent film. Remove the film on the solar panel if any before first use!

\* We recommend that you charge your mbeat solar power charger via USB for its first charge.



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1. Solar Panel
2. Power in (for USB charge cable)
3. Power out (for master cable)
4. LED Indicator
  - A. Solar charging indication LED
  - B. USB charging and discharging LED
  - C. Solar charging indication LED

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**Product specifications:**

1. Solar panel (mono or multi crystalline ) 5.5V 120 mA
2. Rechargeable lithium battery 3.7V 1000mAh
3. USB charging cable:5V 500mA
4. DC output: 5.5 V +/- 0.5% 500mA
5. Time required to deliver initial power from the solar power charger: 30 minutes to 1 hour
6. Time required to charge the solar power charger internal battery using the USB charge cable 3-4 hours
7. Time required to charge the solar power charger under the direct sunlight\* condition using the 2 solar panels 8-10 hours.

**\*Note: the direct sunlight quality plays a key role in determining the speed of charge. Cloudy days or the solar power charger being positioned behind a glass window (car windscreen has the UV filter function to reduce the sunlight power dramatically) will all increase the time need to charge its battery. All charging figures above are under optimum condition**

**Accessories and Charging connectors included:**

1. Solar power charger x 1
2. USB power charging cable x 1 (charge the solar power charger's internal battery via USB)
3. Power out master cable x 1 (the output power cable to charge your device)
4. Charging connectors (tips):
  - a) iPhone/iPod/iPod Nano
  - b) iPod Shuffle ( USB female type connector)
  - c) 1 Type of Nokia common phones (small round tip)
  - d) 1 Type of Nokia common phones (small round tip)
  - e) Samsung G600
  - f) Samsung D800
  - g) Mini USB (most of Blackberry, I-mate, O2XDA)
  - h) LG Chocolate
  - i) Sony Ericsson K750 and W series
  - j) PSP (4 mm jack ), some old TOM TOM GPS units
  - k) Nintendo DS Lite

For details of compatibility list, go to [www.mbeat.com.au](http://www.mbeat.com.au) to check out.

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**Operation Instructions:**

**1. To charge using the USB charge cable**

Insert the USB plug into a PC. Insert the other end of the cable (mini USB) into the solar power charger input port.

The central LED light will turn on red. It will take about 3-4 hours to charge the battery to a full level (98%) and the LED will turn on green.

**\*Note-do not leave the USB charge cable plugged in overnight as damage to the battery may occur.**

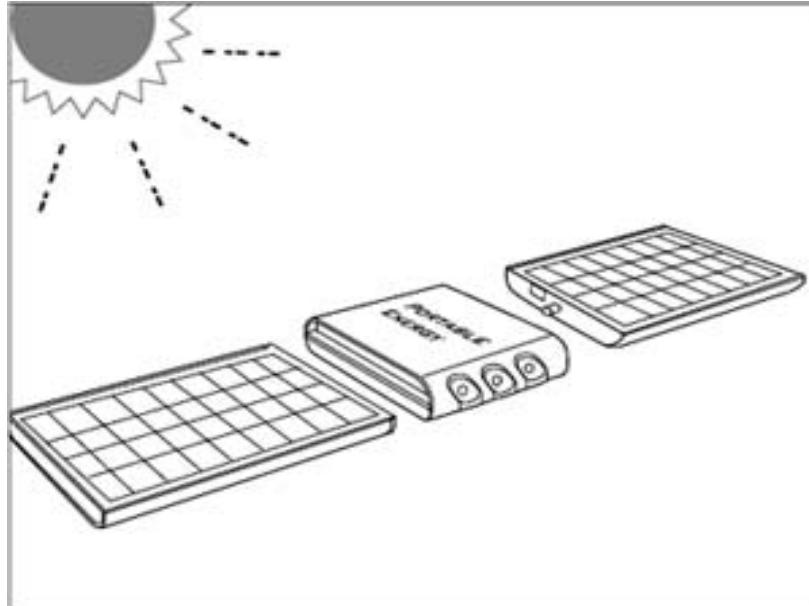
**Don not charge using USB whilst delivering power to a device at the same time.**

**Important-This method of charging is recommended for the first charge from new and may take up to 8 hours to reach battery's full level.**

**2. To charge from the solar panels**

Remove the clear protection film from both solar panels if any before the first time to use. Detach the solar panels from the body of the solar power charger and separate the two halves exposing the face of each solar panel. The end of the solar panel that has the two locating lugs should then be inserted into the side of the solar power charger's body-one solar panels each side.

When the solar panels are facing the sun, the 2 LED's lights will turn on red. The brighter the red LED lights, the faster the charge goes.



**Note- be careful not to scratch the surface of the solar panels and do not clean them with strong detergent.**

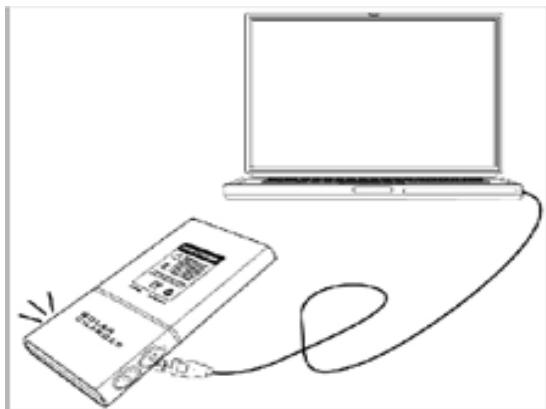
**Be careful to detach and fold back the 2 solar panels together to put them back after finishing charge.**

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**Note- please note there is no indication to confirm that the solar power charger's internal battery is fully charged when using the solar panel to charge under the sunlight, however prolonged exposure of the solar power charger under the sunlight will not damage the battery because of its in-built advanced charge control electronics. However, this is not strictly necessary because the mbeat solar power charger will deliver power whatever state of charge is in its battery hub.**

### **3. To charge the handheld devices**

Insert the male end of the power master cable into the female socket on the solar power charger's body. Select the correct adaptor tip. Insert into the female end of the master cable (with proper charge tips) to your device. The central LED light will turn on RED to start charging. Once the solar power charger internal battery power is empty the LED will turn off.



**Note- user should establish that mbeat solar power charger may not be able to fully charge your device back to the full battery power level as the device's battery capacity is vary due to manufacturer's original design.**

### **4. Optional accessories**

For more mbeat products, please ask your retailer or go to our distributor website [www.ultra-imagination.com](http://www.ultra-imagination.com)

### **5. Dispose the batteries**

Please dispose the mbeat solar power charger's battery responsibly.

## Frequent asked questions

**Please Note:** We recommend your first charge for your mbeat solar power charger should be via USB charge.

### 1. The first charge given to the solar power charger using the USB connection cable takes longer than noted in the manual?

- We recommend that the first charge given to the solar power charger (from new) is done from the USB charge cable connected to a PC or lap top. The reason for this is that the first charge will take the longest (between 4 – 6hours). Like most new devices using a lithium ion battery, the first charge will always take longer than subsequent charges. Please keep the solar power charger connected to the USB until the central LED (B) turns from red to green.

### 2. How do I know the battery is charged full under the direct sun light?

- please note there is no color indication to confirm that the solar power charger's internal battery is fully charged when using the solar panel to charge under the sunlight, however prolonged exposure of the solar power charger under the sunlight will not damage the battery because of its in-built advanced charge control electronics.
- However, this is not strictly necessary because the mbeat solar power charger will deliver power whatever state of charge is in its battery hub.
- The reason the lights are not design to go green is that a voltage regulator has been built into the solar charging circuit. This means that when the hub gets to 98.5% full charge, power is cut from the solar cells, so protecting the hub from overcharging and subsequent damage.

### 3. My solar power charger has been outside, in the sun but when I connected it to my device, it only charged for a short time and did not deliver much power?

- Please ensure the first charge is given by the USB cable.
- Please make sure you have removed the protective film from the solar cells as this will radically reduce the effectiveness of the cells.
- Please ensure the solar power charger is given exposure to sunny conditions for between 5 to 10 hours.
- Ensure the the solar power charger is outside, facing south, in an un-shaded position and ideally tilted at a 45 degree angle.
- If the solar power charger is connected to a device that has a near full battery (if for example you were testing the solar power charger from new), the solar power charger would potentially, not deliver power because if the battery in the device has more or equal power than the solar power charger, the solar power charger will not be able to deliver power. Wait until the device to be charged is 50% to 60% full.

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**4. Can I charge my hand held device's battery to the full level by using this solar power charger for once?**

- Note- user should establish that mbeat solar power charger may not be able to fully charge your device to the full battery power level as the hand held device battery capacity is vary and the solar power charger's internal battery pack capacity is limited.

**5. What sort of performance I can expect from this solar power charger?**

- After 1 day in full sun (9am to 6pm) the mbeat solar power charger hub will be pretty much fully charged. When connected to your device it will deliver power for 20minutes to 1hour depending on the device.
- If the solar power charger is positioned behind a window, again facing south for a 1 day charge in full sun conditions the time needed to fully charge the solar power charger's battery will be up to 3 days. The reason for this increase in time is that most glass incorporates UV filters, which naturally reduce the amount of irradiation needed to enable solar panels to operate effectively
- In cloudy conditions, the solar power charger may take approximately 1 ½ times longer to charge than the above mentioned times, but this is depending on the time of year, density of cloud etc.

**6. Can I charge my solar power charger hub whilst at the same time powering a device?**

- No. If the solar power charger's hub is empty you will not be able to simultaneously charge and deliver power. The reason is that the solar power charger delivers power to a device approximately 10 times quicker than its solar cells can charge up its hub.

**7. Will charging the solar power charger from its solar cells behind glass cause me any problems?**

- Not really a problem but it will increase the time needed to charge the hub sometimes up to three times longer than if outside. – see point 3 above.

**8. I have the solar power charger positioned on a shady window. Will the solar power charger still charge?**

- Yes the solar power charger will still be charged by its solar cells but it will take a lot longer compared to being outside in full sun – up to 4-5 days longer in fact.

**9. How long will the solar power charger's battery store its power for?**

- The solar power charger can store the power without any significant loss for around 3 months.

**10. Can I leave the solar power charger out in the rain?**

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- No we do not recommend getting the solar power charger wet, however, should this happen accidentally, please dry both hub and cells in a dry airy position away from children and food stuffs. The solar cells should be fine; however, the hub / battery may be unsalvageable. A trial will soon tell, however, we would recommend this trial be done outside by the solar cells only and **NOT** the **USB charge cable**. If the hub will not work a new one can be ordered from [www.ultra-imagination.com](http://www.ultra-imagination.com)

**11. I have a device that can be charged via my computers USB port can the solar power charger charge it?**

- Yes the solar power charger should be able to charge it with a proper charge tip, like the USB female connector. NOTE – devices using the USB adapter tip to charge will need synchronization cable/plug (not supplied). These are usually supplied with the original device.

**12. Are there any devices that the solar power charger can not power?**

- The solar power charger has a typical voltage range of 3v to 5.5v, so any device that needs a higher voltage such as a lap top, video camera is outside the range of the battery's capability.
- Some digital camera's where the battery of the camera needs to be removed and inserted into a cradle to charge.

**13. I damaged the solar panels, is that covered by the warranty?**

- Sorry, the standard warranty is 12 month excluding the battery pack (6 months), the solar power charger is not covered the physical damage on the device include the crystalline solar panels. Should a failure occur during this time, we will repair or replace any faulty parts at its sole discretion.

To all the mbeat solar power charger users, we are looking for the wonderful images that you took with your mbeat solar power charger around the world. For every image we published on the magazine or the website you will receive a free and surprised gift from us. If you like, Please send your image to [sales@ultra-imagination.com](mailto:sales@ultra-imagination.com) . Please also note that we can not guarantee to publish the every image that we received from the user, the final decision will be made by our company at its sole discretion. By sending the image to us , the image owner or the sender automatically grant the permission to us for any future using those images in marketing our solar power charger products.